

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

IN RE APPLICATION OF: Akira FUJIMOTO, et al.

SERIAL NO: New Application

GAU:

FILED: Herewith

EXAMINER:

FOR: DISPLAY DEVICE AND METHOD OF MANUFACTURING TRANSPARENT SUBSTRATE FOR DISPLAY DEVICE

**INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97**

COMMISSIONER FOR PATENTS  
ALEXANDRIA, VIRGINIA 22313

SIR:

Applicant(s) wish to disclose the following information.

**REFERENCES**

- ☒ The applicant(s) wish to make of record the references listed on the attached form PTO-1449. Copies of the listed references are attached, where required, as are either statements of relevancy or any readily available English translations of pertinent portions of any non-English language references.
- ☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

**RELATED CASES**

- ☒ Attached is a list of applicant's pending application(s) or issued patent(s) which may be related to the present application. A copy of the patent(s), together with a copy of the claims and drawings of the pending application(s) is attached along with PTO 1449.
- ☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

**CERTIFICATION**

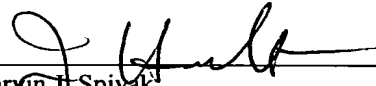
- ☐ Each item of information contained in this information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.
- ☐ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned, having made reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this statement.

**DEPOSIT ACCOUNT**

- ☒ Please charge any additional fees for the papers being filed herewith and for which no check or credit card payment is enclosed herewith, or credit any overpayment to deposit account number 15-0030. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.

  
Maryin J. Spivak

Registration No. 24,913

James D. Hamilton  
Registration No. 28,421

Customer Number

**22850**

Tel. (703) 413-3000  
Fax. (703) 413-2220  
(OSMMN 05/03)

**LIST OF RELATED CASES**

<u>Docket Number</u>	<u>Serial or Patent Number</u>	<u>Filing or Issue Date</u>	<u>Inventor/ Applicant</u>
192828US0 SRD	6,565,763	05/20/03	ASAKAWA et al.
221152US2 SRD	10/102,812	03/22/02	HIEDA et al.
232435US0 TTCPD	10/330,086	12/30/02	ASAKAWA et al.
232918US2S	10/346,108	01/17/03	SUGIYAMA et al.
233106US0 SRD DIV	10/347,767	01/22/03	ASAKAWA et al.
233111US0 SRD DIV	10/347,956	01/22/03	ASAKAWA et al.

DOCKET NO.: 249406US2SRD

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

IN RE APPLICATION OF: Akira FUJIMOTO, et al.

SERIAL NO: New Application

FILED: HEREWITH

FOR: DISPLAY DEVICE AND METHOD OF MANUFACTURING  
TRANSPARENT SUBSTRATE FOR DISPLAY DEVICE

**STATEMENT OF RELEVANCY**

**Reference AA (US 5,779,924) on Form PTO-1449:**

The rough surface is formed on the Gap one for higher luminescence of LEDs  
But this concept for higher luminescence is different from my concept. My claiming  
structure is out of this one.

**Reference AB (US 4,554,727) on Form PTO-1449:**

The rough surface is formed on the glass for higher efficiency of solar cells. This  
claiming structure is the cylindrical structure. My claiming structure is the cone-shaped  
structure and is different from this claiming structure.

**Reference AO (JP 8-167738) on Form PTO-1449:**

The rough surface is formed on the semiconductor one for higher luminescence  
of LEDs. But my claiming structure is out of this one.

**Reference AP (JP 2000-299494) on Form PTO-1449:**

The rough surface is formed on the Gap one for higher luminescence of LEDs:  
But my claiming structure is out of this one.

**Reference AQ (JP 4-354382) on Form PTO-1449:**

The rough surface is formed on the Gap one for higher luminescence of LEDs.  
But my claiming structure is out of this one.

DOCKET NO.: 249406US2SRD

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

IN RE APPLICATION OF: Akira FUJIMOTO, et al.

SERIAL NO: New Application

FILED: HEREWITH

FOR: DISPLAY DEVICE AND METHOD OF MANUFACTURING  
TRANSPARENT SUBSTRATE FOR DISPLAY DEVICE

**STATEMENT OF RELEVANCY**

**Reference AW on Form PTO-1449:**

This letter is similar to my invention, but my claiming structure is different from this one. The method of the fabrication is different from my method.

**Reference AX on Form PTO-1449:**

This letter applies theoretical calculations for the antireflection structure, but the method of the fabrication is different from my method.

**Reference AY on Form PTO-1449:**

The uneven structure that has sub-micron sizes is fabricated on the silicon surface by only dry etching. But it cannot be only fabricated on the silicon.

Form PTO 1449 (Modified)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY DOCKET NO. 249406US2SRD		SERIAL NO. New Application	
LIST OF REFERENCES CITED BY APPLICANT				APPLICANT Akira FUJIMOTO, et al.			
				FILING DATE Herewith		GROUP	
<b>U.S. PATENT DOCUMENTS</b>							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	AA	5,779,924	07/14/98	Michael R. KRAMES, et al.			
	AB	4,554,727	11/26/85	Harry W. DECKMAN, et al.			
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						
	AL						
	AM						
	AN						
<b>FOREIGN PATENT DOCUMENTS</b>							
		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION		
					YES	NO	
	AO	8-167738	06/25/96	JAPAN		X	
	AP	2000-299494	10/24/2000	JAPAN		X	
	AQ	4-354382	12/08/92	JAPAN		X	
	AR						
	AS						
	AT						
	AU						
	AV						
<b>OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)</b>							
	AW	Y. KANAMORI, et al., "100 NM PERIOD SILICON ANTIREFLECTION STRUCTURES FABRICATED USING A POROUS ALUMINA MEMBRANE MASK", Applied Physics Letters, Vol. 78, No. 2, January 8, 2001, pgs. 142-143					
	AX	Yoshiaki KANAMORI, et al., "BROADBAND ANTIREFLECTION GRATINGS FOR GLASS SUBSTRATES FABRICATED BY FAST ATOM BEAM ETCHING", Jpn. J. Appl. Phys., Vol. 39, July 15, 2000, pgs. L735-L737					
	AY	Y. INOMATA, et al., "SURFACE TEXTURING OF LARGE AREA MULTICRYSTALLINE SILICON SOLAR CELLS USING REACTIVE ION ETCHING METHOD", Solar Energy Materials and Solar Cells, Vol. 48, 1997, pgs. 237-242					
	AZ					<input type="checkbox"/> Additional References sheet(s) attached	
Examiner					Date Considered		
<small>*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</small>							